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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,607	07/19/2000	FUMIO NAGASAKA	106365	1439

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OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

ARANI, TAGHI T

ART UNIT PAPER NUMBER

2131

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/619,607

Applicant(s)

NAGASAKA, FUMIO

Examiner

Taghi T. Arani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-6,8,10,12,14-19,21,23-24,26-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 2-4,7,9,11,13,20,22,25 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**Detailed Office Action**

1. Claims 1-29 have been fully reconsidered and are pending.

**Continued Examination Under 37 CFR 1.114**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01-25-2005 has been entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-6, 8, 14-15, 18-19, 21, 23-24, 26-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett (USP 5,734,909) and further in view of Comroe et al. (USP 4,667,191).

As per claims 1, 21, 24 and 27, Bennett teaches a response unit that gives a response of failed log-in to one specific device of interest, which has just output a request of log-in, when a number of specific devices that currently log in said logged-in device reaches a predetermined allowable number of simultaneous log-in (column 2, lines 30-35 and column 4, lines 21-37); and a re-request timing specification unit that specifies a timing of re-request of log-in to determine a time when said specific device of interest, which has just output the request of log-in

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and received the response of failed log-in, should output another request of failed log-in (column 2, lines 40-41, see also col. 1, lines 53-57, Bennett discloses locks whereby the server enforces serial equivalence on clients and transactions by ordering them, at least partially, according to the time sequence in which they first access a resource. Bennett further discloses, col. 8, lines 38-47, that the server enforces a “ first-come-first-serve” system of accounting for clients retries)).

Bennett is silent in disclosing a predetermined relationship being between the specified timing and the specific device of interest.

However, Comroe et al. teach a serial link communications protocol for optimizing bus contention (abstract) wherein a predetermined relationship being between the specified timing and the specific device of interest (col. 5, lines 1-13).

It would have been obvious to one of ordinary skill at the time the invention was made to utilize the serial link communications protocol of Comroe et al. in system of Bennett to optimize the transmission, eliminate randomization overhead and to simplify bus contention (Comroe et al., col. 2, lines 18-26).

Bennett as modified discloses computer readable medium, in which said first program code and said second program code are stored (column 1, lines 33-40).

**As per claims 14, 23, 26 and 29**, Bennett teaches a log-in request unit that outputs a request of log-in to said specific device and, when receiving a response of failed log-in and a specification of a timing of re-request from said specific device, outputs another request of login to said specific device at the specified timing of re-request (column 2, lines 40-43) and computer readable medium, in which program code is stored (column 1, lines 33-40, see also col. 1, lines 53-57, Bennett discloses locks whereby the server enforces serial equivalence on clients and

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transactions by ordering them, at least partially, according to the time sequence in which they first access a resource. Bennett further discloses (col. 8, lines 38-47) that the server enforces a “first-come-first-serve” system of accounting for clients retries ).

Bennett is silent in disclosing a predetermined relationship being between the specified timing and the specific device of interest.

However, Comroe et al. teach a serial link communications protocol for optimizing bus contention (abstract) wherein a predetermined relationship being between the specified timing and the specific device of interest (col. 5, lines 1-13).

It would have been obvious to one of ordinary skill at the time the invention was made to utilize the serial link communications protocol of Comroe et al. in system of Bennett to optimize the transmission, eliminate randomization overhead and to simplify bus contention (Comroe et al., col. 2, lines 18-26).

**As per claims 18 and 19**, Bennett teaches a response unit that gives a response of failed log-in to one specific device of interest, which has just output a request of log-in, when a number of specific devices that currently log in said logged-in device reaches a predetermined allowable number of simultaneous log-in (column 2, lines 3035 and column 4, lines 21-37); and

a re-request timing specification unit that specifies a timing of re-request of log-in to determine a time when said specific device of interest, which has just output the request of log-in, should output another request of log-in, and assigns the specified timing of re-request to said log-in device of interest, when said response gives the response of failed log-in (column 2, lines 40-41, see also col. 1, lines 53-57, Bennett discloses lock request and response whereby the server enforces serial equivalence on clients and transactions by ordering them, at least partially,

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according to the time sequence in which they first access a resource. Bennett further discloses, col. 8, lines 38-47, that the server enforces a “ first-come-first-serve” system of accounting for clients retries), and received the response of failed log-in, should output another request of log-in (column 2, lines 40-41),

a log-in request unit that outputs a request of log-in to said specific device and, when receiving a response of failed log-in and a specification of a timing of re-request from said specific device, outputs another request of login to said specific device at the specified timing of re-request (column 2, lines 40-43, see also col. 1, lines 53-57, Bennett discloses lock request and response whereby the server enforces serial equivalence on clients and transactions by ordering them, at least partially, according to the time sequence in which they first access a resource. Bennett further discloses (col. 8, lines 38-47) that the server enforces a “ first-come-first-serve” system of accounting for clients retries).

Bennett is silent in disclosing a predetermined relationship being between the specified timing and the specific device of interest.

However, Comroe et al. teach a serial link communications protocol for optimizing bus contention (abstract) wherein a predetermined relationship being between the specified timing and the specific device of interest (col. 5, lines 1-13).

It would have been obvious to one of ordinary skill at the time the invention was made to utilize the serial link communications protocol of Comroe et al. in system of Bennett to optimize the transmission, eliminate randomization overhead and to simplify bus contention (Comroe et al., col. 2, lines 18-26).

**As per claim 5**, Bennett as modified teach re-request timing specification unit specifies the timing of re-request of log-in as a time constant that represents a time period to elapse before output of another request of log-in (see Comroe et al. col. 5, line 3, i.e. a prioritized period of time).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the system of Bennett to include the timing of a re-request of log-in as a time constant taught by Comroe et al. because in this way each device will attempt to access the bus at a different time to prevent collision (col. 5, lines 10-13).

**As per claim 6**, Bennett teaches said logged-in device comprises at least one logical unit, which is independently logged in by each of said plurality of specific devices (column 3, lines 54-55), a response unit that gives a response of failed log-in to one specific device of interest, which has just output a request of log-in, when a number of specific devices that currently log in said logged-in device reaches a predetermined allowable number of simultaneous log-in (column 2, lines 30-35 and column 4, lines 2137); and

a re-request timing specification unit that specifies a timing of re-request of log-in to determine a time when said specific device of interest, which has just output the request of log-in and received the response of failed log-in, should output another request of log-in (column 2, lines 40-41).

**As per claims 8 and 15**, Bennett teaches said plurality of specific devices are adjusted not to output the request of log-in simultaneously via said predetermined communication path (column 2, line 33).

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4. **Claims 10, 12, 16 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett and Comroe et al. in view of Applicants Admitted Prior Art (herein AAPA).

As per claims 10, 12, 16, and 17, Bennett teaches a computer system in which clients are logged in until the maximum number has reached (column 1, lines 26-40 and column 4, lines 21-37). Bennett even discloses that one skilled in the art can apply his teachings to a client environment that contends for shared client resources (column 4, lines 21-24). AAPA discloses a client environment that contends for shared client resources on the IEEE 1394 bus (page 1, line 20) using the proposed standard for that bus, SBP-2 protocol (page 1, lines 16-19). One skilled in the art could have advantageously applied the teachings of Bennett's system to the IEEE 1394, which is a resource that is contended by many clients.

In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of AAPA within the system of Bennett because the IEEE 1394 bus using the standard protocol SBP-2 is one example of a shared client resource which is contended by clients and would benefit from Bennett's teachings of sharing the resources among clients fairly. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

***Allowable Subject Matter***

5. **Claims 2-4, 7, 9, 11, 13, 20, 22, 25 and 28** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



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Prior art of record singly or in combination does not teach or fairly suggest timing of a re-request based on ordinal number of precedence allocated to devices recited in claims 2, 20, 22 and 25.

### **Conclusion**

6. Prior arts made of record, not relied upon:

USP 5,339, 427 is directed to distributed locking of shared data.

USP 6,504,847 discloses device operability connecting to a serial bus.

USP 6,243,778 addresses system architecture for a high speed serial bus compatible with the 1394 standard.

USP 6,430,635 discloses protocol interfacing operation for a plurality of nodes in an IEEE 1394 bus network.

IBM Technical Disclosure, Bulletin, Lock Management Architecture, Vol. 31, Iss. 5, Pages 125-128, October 1988.

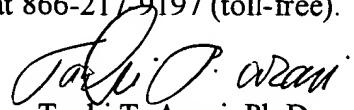
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taghi T. Arani whose telephone number is (571) 272-3787. The examiner can normally be reached on 8:00-5:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Taghi T. Arani, Ph.D.

Examiner

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4/28/05